Claims

What is claimed is:

1. A system for mirroring write operations from a local storage system onto a remote storage system, the system comprising:

an AIM driver resident in the local storage system for intercepting I/O transactions to a storage disk of the local storage system, identifying a write transaction to said storage disk, making a copy of the write transaction, and storing said copy in a series of files that are created on a file-system of the local storage system;

a first AIM coordinator resident on the local storage system for invoking a file transfer system to transmit the newly created files on the local file-system of the local storage system to a file system of the remote storage system via a non-proprietary network protocol; and

a service that sends the write transactions to a network to which a remote storage system is connected.

2. The system claim 1 further comprising:

a second AIM coordinator resident on the remote storage system for detecting the newly arrived files on the file system of the remote storage system, opening the files and reading the copies of the I/O transactions in these files; and

an AIM driver resident on the remote storage system for receiving the copies of the I/O transactions from the second AIM coordinator and issuing the transactions to a remote device connected to the remote storage system which is configured to mirror the local storage device on the local storage system.

3. A method for mirroring write operations from a local storage system to a remote storage system, the method comprising the steps of:

intercepting I/O transactions to a storage disk of the local storage system;

identifying a write transaction to said storage disk;

making copies of the write transaction;

storing said copy in a series of files that are created on the local file-system of the local storage system;

invoking a file transfer system to transmit, via a non-proprietary network protocol, the newly created files from the local file-system of the local storage system to a network to which the remote storage system is connected; and

writing the transaction to the storage device of the remote storage system.

4. The method of claim 3, further comprising:

passing the copies of the I/O transactions to a driver issuing the transactions to storage device of the remote storage system, which is configured to mirror the storage device on the local storage system.

5. A computer program product for mirroring write operations from a local storage system to a remote storage system, the computer program product comprising:

an AIM driver software module for intercepting I/O transactions to a storage disk of the local storage system, identifying a write transaction to said storage disk, making a copy of the write transaction, and storing said copy in a series of files that are created on a file-system of the local storage system;

a first AIM coordinator software module for invoking a configured file transfer system to transmit the newly created files it finds on the file-system of the local storage system to a file system on the remote storage system via a non-proprietary network protocol; and

a service that sends the write transactions to a remote storage system is connected by a network.

6. The computer program product of claim 5 further comprising:

a second AIM coordinator software module installed on the remote storage system for detecting the newly arrived files on the file system of the remote storage system, opening the files and reading the copies of the I/O transactions in these files, and issuing the copies of the I/O transactions to a storage device connected to the remote storage system that is configured to mirror the storage device on the local storage system.

7. The system of claim 1, wherein the file comprises:

a Header portion that includes information on the total size of the file;

an I/O Control Block portion which indicates address offsets where each transaction in the file is to be stored on the remotely located destination storage system, and which further indicates the size of the data for each transaction; and

a Data portion which contains the data for each transaction in the file.

8. The system of claim 7, wherein the Header portion of the file further includes:

a pointer to the I/O Control Block portion which indicates the offset where the I/O Control Block portion of the file begins; and

a pointer to the Data portion, which indicates the offset where the Data portion of the file begins.

9. The system of claim 1, wherein the AIM driver intercepts all I/O transactions in the system.

10. The method of claim 3, wherein intercepting I/O transactions comprises intercepting all I/O transactions in the system.

11. The computer program product of claim 1, wherein the AIM driver module intercepts all I/O transactions in the system.

12. The system of claim 1, wherein the AIM driver intercepts a formatting transaction.

13. The method of claim 3, wherein intercepting I/O transactions comprises intercepting a formatting transaction.

14. The computer program product of claim 1, wherein the AIM driver module intercepts a formatting transaction.

15. The system of claim 1, wherein the AIM driver intercepts a partitioning transaction.

16. The method of claim 3, wherein intercepting I/O transactions comprises intercepting a partitioning transaction.

17. The computer program product of claim 1, wherein the AIM driver module intercepts a partitioning transaction.

18. The system of claim 1, wherein the AIM driver intercepts a transaction affecting the content or organization of a disk.

19. The method of claim 3, wherein intercepting I/O transactions comprises intercepting a transaction affecting the content or organization of a disk.

20. The computer program product of claim 1, wherein the AIM driver module intercepts a transaction affecting the content or organization of a disk.